

Isolation of the *hreX* Gene Encoding the HR Elicitor Harpin (Xcp) from *Xanthomonas campestris* pv. *pelargonii*. S. SWANSON and Z-M. Wei. EDEN Bioscience Corporation, Bothell, WA 98011 USA. Phytopathology 90:S75. Publication no. P-2000-0537-AMA.

This study reports the isolation of a gene encoding a proteinaceous HR elicitor from *Xanthomonas campestris* pv. *pelargonii*, *Xcp*. The HR elicitor exhibits a high potency for eliciting HR in tobacco. Treatment of the *Xcp* HR Elicitor with proteases resulted in a loss of HR activity. Degenerate oligonucleotides were designed based on amino acid sequences obtained from the purified HR elicitor and used to screen a *Xanthomonas campestris* pv. *pelargonii* genomic library. An open reading frame, ORF, was identified consisting of 381 base pairs that encoded a protein of 126 amino acids. The ORF initiated with a typical methionine start codon and was preceded by a putative ribosome-binding site. The ORF was designated as the *hreX* gene, encoding the HR elicitor harpin (Xcp). HreX has a molecular weight of 13.3KD, a theoretical pI of 3.8 and is glycine rich. Further studies of harpin (Xcp) and its bioactivity are currently underway.

